

## ABSTRACT

A novel locking mechanism for mounting a radio to an antenna. The mounting face of a radio is secured to the mounting portion of an antenna. The mounting portion of the radio has a locking ring on which a plurality of radio locking tabs are located at  
5 equally spaced positions. The ring can be fixed to the radio, or in another embodiment, is still secured to the radio but can rotate independently. The mounting portion of the antenna has a corresponding number of equidistantly spaced tension springs, which have a plurality of spring fingers. To mount the radio to the antenna, the radio locking ring with radio locking tabs is twisted so that each antenna tension spring is deflected by a  
10 corresponding radio locking tab. The engagement of the radio locking ring to the antenna spring fingers secures the radio to the antenna. The deflection force also produces a friction force. The spring fingers allow the deflection and friction forces between the tension spring and radio locking tab to increase step-wise when the radio locking ring is brought into contact with each additional spring finger. This step increase in forces  
15 allows a user, when turning the radio, to overcome the forces of each spring finger individually, instead of having to initially overcome both sum forces of one solid spring. When the adaptation of the rotating ring is used and additional polarization feature, is possible that prevents the incorrect polarization installation of the radio and antenna assembly by the user.